



## OPTIMIZED FFT ARCHITECTURE FOR MIMO APPLICATIONS (ThuAmOR10)

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✳ Abstract :

Upcoming wireless transmission systems, such as 4G, will most likely utilize MIMO in order to enhance data rate and link reliability. OFDM will be the enabler to combat the effects of a multipath environment. In this paper we will present results that we have obtained during the design of our FPGA-based MIMO concept demonstrator. Special attention will be given to FPGA suitable implementation of the key elements of our 4x4 MIMO OFDM system. In particular we demonstrate a fully pipelined FFT that is capable of processing up to 4 streams in parallel.